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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,873	03/04/2005	Vasanth R. Gaddam	US020325	7413

24737 7590 03/04/2009
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
JAVAID, JAMAL	

ART UNIT	PAPER NUMBER
2416	

MAIL DATE	DELIVERY MODE
03/04/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/526,873	GADDAM ET AL.	
	Examiner	Art Unit	
	Jamal Javaid	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/16/2008 have been fully considered but they are not persuasive.

a. Applicant argues that "*Bellier only describes inserting dummy bits into a coded block in pre-defined bit locations, interleaving, then replacing dummy bits with bits indicative of signaling messages*" and "*Both Breti and Bellier are replacing bits with information from a completely different bit stream. Breti and Bellier fail to teach or even suggest all the claimed features*" (pages 6-7 of Applicant's Remarks filed on 12/16/2008).

i. In response, Examiner first notes an important change regarding a special reading of the prior art reference of Breti that was made in the previous Office Action which Applicant failed to acknowledge or address: multiplexers 186 and 190 in figure 11 were newly taken together to *collectively* constitute the multiplexer of Applicant's claimed invention. This manner of combining the two multiplexers to constitute one multiplexer in itself overcomes Applicant's main argument against the prior art reference of Breti: the interpretation and reading of Breti must now mean that the replacing of the placeholder bit-stream is done with information bits within the *same* stream (whereas, previously, when the two multiplexers were *not* being constituted to being one, single multiplexer, the dummy bits of the multiplexer 190 was being replaced by information bits from the

multiplexer 186, i.e. not from the same stream). Thus, this interpretation alone was sufficient to show that Applicant's claimed limitations were taught by Breti.

ii. However, despite the above remarks, Examiner still chose to use the prior reference of Bellier, but only to further strengthen the rejection and demonstrate that Applicant's invention has been taught or at least fairly suggested by the prior art. That is, Examiner's remarks in sub-section (i) above alone would have been sufficient to overcome Applicant's arguments. Nevertheless, Bellier was used only to teach the replacing of bits of a placeholder bit-stream of a given data stream with information bits derived from the same data stream, as indicated in the rejection below. Essentially, Bellier teaches inserting dummy bits into a coded block in pre-defined bit locations, interleaving, then replacing dummy bits with bits indicative of signaling messages (as stated by Applicant within Applicant's previous arguments). Thus, this teaching alone, in combination with the teachings of Breti, fairly teach and at least suggest the limitation in question of Applicant's claimed invention.

iii. Applicant is reminded that, due to the nature of the 103 rejection, the references of Breti and Bellier, for purposes of the rejection, must be viewed as a single reference and the individual teachings in each of these references must be viewed in light of each other. Thus, any limitation(s)

lacking in the reference of Bellier has been taught by the reference of Breti, as described in the rejection below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 5-8, 10-12, 15-18, and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Breti et al. (US Patent Application No. 2005/0152411) in view of Bellier et al. (US Patent Application No. 2002/0194566).

Consider claim 1, Breti discloses a digital signal transmission apparatus **(see paragraph 0007 lines 1-2)** comprising:

a multiplexer having an output port **(see elements 186 and 190 in figure 11, which are taken together to collectively constitute said multiplexer)**,

an input port for inputting an information bit-stream **(see the multiplexer, element 190 in figure 11, where the top three input ports input information bit-streams, as disclosed in paragraph 0066 lines 1-3 and lines 6-12; see claim 2; further, see the multiplexer, element 186 in figure 11, where the inputs it receives include information bit-streams)** and

an input port for inputting a placeholder bit-stream **(see the multiplexer, element 190 in figure 11, where the bottommost input port inputs a placeholder**

bit-stream i.e. dummy stream, further disclosed in paragraph 0066 lines 12-17 and claim 3),

for multiplexing the bit-streams inputted from the input ports to form a multiplexed bit-stream for output on the output port **(see paragraph 0066 lines 17-20)**;

a data formatter for receiving the multiplexed bit-stream and for replacing bits of said placeholder bit-stream within the received multiplexed bit-stream with bits derived from an information bit-stream to form a modified bit-stream **(see interleaver and data replacer, elements 192 and 194 in figure 11, with the convolutional byte interleave of the interleaver and the dummy byte replacement of the data replacer, together combined, collectively perform the function of said data formatter, as disclosed in paragraph 0067; also, see claim 3)**;

an encoder for encoding the modified bit-stream to produce an encoded bit-stream **(see elements 204 and 208 in figure 11 and paragraph 0070)**;

a transmitter for transmitting the encoded bit-stream **(see element 202 in figure 11 and claim 62)**.

Breti does not specifically disclose replacing bits of the placeholder bit-stream of a given data stream with information bits derived from the same data stream.

Bellier teaches replacing bits of the placeholder bit-stream of a given data stream with information bits derived from the same data stream **(see abstract, elements 130 and 150, paragraphs 0009, 0011, and 0037, and claims 1 and 2, wherein disclosed is replacing dummy bits, i.e. bits of a placeholder bit-stream of a given data**

stream, with further bits of the same data stream, i.e. information bits derived from the same data stream).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and replace bits of the placeholder bit-stream of a given data stream with information bits derived from the same data stream, as taught by Bellier, thus providing an efficient signaling mechanism **(see paragraph 0004)**.

Consider claim 2, Breti discloses that the deriving creates a new bit, but retains any bit from which derivation has occurred **(see paragraph 0068, where new bits and information are created after being outputted from the data replacer, but the original bits and information that the new data is created from is still retained)**.

Consider claim 5, Breti discloses that the multiplexer is configured with an additional input port for inputting an additional bit-stream **(see elements 162, 164, and 166 in figure 11, which each receive uncoded auxiliary bit-streams, which are additional bit-streams and are ultimately inputted to multiplexer; also, see paragraph 0064, lines 3-18)**.

Consider claim 6, Breti discloses that the multiplexer is configured to input a plurality of additional bit-streams **(see elements 162, 164, and 166 in figure 11, which**

each receive uncoded auxiliary bit-streams, which are additional bit-streams and are ultimately inputted to multiplexer; also, see paragraph 0064, lines 3-18) ,

a plurality of information bit-streams **(see the multiplexer, element 190 in figure 11, where the top three input ports input information bit-streams, as disclosed in paragraph 0066 lines 1-3 and lines 6-12; see claim 2)**, and

a plurality of placeholder bit-streams through their respective input ports **(see the multiplexer, element 190 in figure 11, where all four inputs are configured to input placeholder bit-streams, although the top three inputs input placeholder and information bit-streams and the bottommost input exclusively inputs a place-holder bit-stream, as disclosed in paragraph 0066)** for said multiplexing to form said multiplexed bit-stream **(see paragraph 0066 lines 17-20)**,

each of the information bit streams to by multiplexed by the multiplexer having an identical number of bits **(see paragraph 0066 lines 1-3, where each information bit-stream has 3 bytes)**,

each of the placeholder bit-streams to be multiplexed by the multiplexer having an identical number of bits **(see paragraph 0066 line 4, where each dummy bit-stream has 184 placeholder bytes)**,

the multiplexer being configured to multiplex each of the information and placeholder bit-streams for their respective identical number of bits before selecting another bit-stream for multiplexing **(see element 190 in figure 11, where the information and placeholder bit-streams are first multiplexed, also disclosed in paragraph 0066, before selecting another bit-stream for multiplexing, which is**

from the output of multiplexer 186 in figure 11, also disclosed in paragraphs 0067 and 0068).

Consider claim 7, Breti discloses that said multiplexer is further configured to perform said multiplexing so as to select in succession, over a predetermined number of bit-streams, no more than three of said additional bit-streams **(see paragraph 0067 lines 5-8, which discloses that said addition bit-streams are successively selected and multiplexed (from multiplexer 186 in figure 11), which as is apparent from figure 11 and paragraph 0064 lines 3-18, has exactly three additional bit-streams i.e. no more than three additional bit-streams).**

Consider claim 8, Breti discloses that the multiplexer is further configured to perform said multiplexing so as to input in succession one or more of the additional bit-streams after each input of one of an information bit-stream and a placeholder bit-stream **(see element 190 in figure 11, where the information and placeholder bit-streams are first multiplexed, also disclosed in paragraph 0066, before selecting the three additional bit-streams for multiplexing, which is from the output of multiplexer 186 in figure 11, also disclosed in paragraphs 0067 and 0068)**.

Consider claim 10, Breti discloses that said replacing comprises removing selected bits from said information bit-stream within said received multiplexed bit-stream

and substituting the removed bits to replace bits of said placeholder bit-stream within said received multiplexed bit-stream **(see paragraph 0053 and claim 5)**.

Consider claim 11, Breti discloses a digital signal transmission method **(see paragraph 0007 lines 1-2)** comprising:

multiplexing an information bit-stream **(see the multiplexer, elements 186 and 190 in figure 11 (which are taken together, collectively, to constitute said multiplexing), where the top three input ports input information bit-streams, as disclosed in paragraph 0066 lines 1-3 and lines 6-12; see claim 2)** and

a placeholder bit-stream **(see the multiplexer, element 190 in figure 11, where the bottommost input port inputs a placeholder bit-stream i.e. dummy stream, further disclosed in paragraph 0066 lines 12-17 and claim 3)** to form a multiplexed bit-stream **(see paragraph 0066 lines 17-20)**;

receiving the multiplexed bit-stream and replacing bits of said placeholder bit-stream within the received multiplexed bit-stream with bits derived from an information bit-stream to form a modified bit-stream **(see interleaver and data replacer, elements 192 and 194 in figure 11, with the convolutional byte interleave of the interleaver and the dummy byte replacement of the data replacer, together combined, collectively perform claimed function, as disclosed in paragraph 0067; also, see claim 3)**;

encoding the modified bit-stream to produce an encoded bit-stream **(see elements 204 and 208 in figure 11 and paragraph 0070)**; and

transmitting the encoded bit-stream **(see element 202 in figure 11 and claim 62)**.

Breti does not specifically disclose replacing bits of the placeholder bit-stream of a given data stream with information bits derived from the same data stream.

Bellier teaches replacing bits of the placeholder bit-stream of a given data stream with information bits derived from the same data stream **(see abstract, elements 130 and 150, paragraphs 0009, 0011, and 0037, and claims 1 and 2, wherein disclosed is replacing dummy bits, i.e. bits of a placeholder bit-stream of a given data stream, with further bits of the same data stream, i.e. information bits derived from the same data stream)**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and replace bits of the placeholder bit-stream of a given data stream with information bits derived from the same data stream, as taught by Bellier, thus providing an efficient signaling mechanism **(see paragraph 0004)**.

Consider claim 12, Breti discloses that the deriving creates a new bit, but retains any bit from which derivation has occurred **(see paragraph 0068, where new bits and information are created after being outputted from the data replacer, but the original bits and information that the new data is created from is still retained)**.

Consider claim 15, Breti discloses multiplexing an additional input port for inputting an additional bit-stream to form said multiplexed bit-stream **(see elements 162, 164, and 166 in figure 11, which each receive uncoded auxiliary bit-streams, which are ultimately inputted to multiplexer; also, see paragraph 0064, lines 3-18)**.

Consider claim 16, Breti discloses that the multiplexer is configured to input a plurality of additional bit-streams **(see elements 162, 164, and 166 in figure 11, which each receive uncoded auxiliary bit-streams, which are additional bit-streams and are ultimately inputted to multiplexer; also, see paragraph 0064, lines 3-18)**,

a plurality of information bit-streams **(see the multiplexer, element 190 in figure 11, where the top three input ports input information bit-streams, as disclosed in paragraph 0066 lines 1-3 and lines 6-12; see claim 2)**, and

a plurality of placeholder bit-streams through their respective input ports **(see the multiplexer, element 190 in figure 11, where all four inputs are configured to input placeholder bit-streams, although the top three inputs input placeholder and information bit-streams and the bottommost input exclusively inputs a place-holder bit-stream, as disclosed in paragraph 0066)** for said multiplexing to form said multiplexed bit-stream **(see paragraph 0066 lines 17-20)**,

each of the information bit streams to by multiplexed by the multiplexer having an identical number of bits **(see paragraph 0066 lines 1-3, where each information bit-stream has 3 bytes)**,

each of the placeholder bit-streams to be multiplexed by the multiplexer having an identical number of bits **(see paragraph 0066 line 4, where each dummy bit-stream has 184 placeholder bytes)**,

the multiplexer being configured to multiplex each of the information and placeholder bit-streams for their respective identical number of bits before selecting another bit-stream for multiplexing **(see element 190 in figure 11, where the information and placeholder bit-streams are first multiplexed, also disclosed in paragraph 0066, before selecting another bit-stream for multiplexing, which is from the output of multiplexer 186 in figure 11, also disclosed in paragraphs 0067 and 0068)**.

Consider claim 17, Breti discloses that said multiplexer is further configured to perform said multiplexing so as to select in succession, over a predetermined number of bit-streams, no more than three of said additional bit-streams **(see paragraph 0067 lines 5-8, which discloses that said addition bit-streams are successively selected and multiplexed (from multiplexer 186 in figure 11), which as is apparent from figure 11 and paragraph 0064 lines 3-18, has exactly three additional bit-streams i.e. no more than three additional bit-streams).**

Consider claim 18, Breti discloses that the multiplexer is further configured to perform said multiplexing so as to input in succession one or more of the additional bit-streams after each input of one of an information bit-stream and a placeholder bit-

stream **(see element 190 in figure 11, where the information and placeholder bit-streams are first multiplexed, also disclosed in paragraph 0066, before selecting the three additional bit-streams for multiplexing, which is from the output of multiplexer 186 in figure 11, also disclosed in paragraphs 0067 and 0068)**.

Consider claim 20, Breti discloses that said replacing comprises selecting bits from said information bit-stream within said received multiplexed bit-stream, removing selected bits from said information bit-stream within said received multiplexed bit-stream and substituting the removed bits to replace bits of said placeholder bit-stream within said received multiplexed bit-stream **(see paragraph 0053 and claim 5)**.

3. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breti et al. (US Patent Application No. US 2005/0152411) in view of Bellier et al. (US Patent Application No. 2002/0194566) in further view of Abbott (US Patent No. 6,438,569).

Consider claim 3, Breti discloses replacing bits of the placeholder bit-stream with bits derived from the information bit-stream **(see paragraph 0067 and claim 3)**.

Breti and Bellier do not specifically disclose duplicating bits of the information bit-stream within the received multiplexed bit-stream to form duplicate bits and substituting the duplicate bits to replace bits of the placeholder bit-stream within the multiplexed bit-stream.

Abbot teaches duplicating bits of the information bit-stream within the received multiplexed bit-stream to form duplicate bits **(see col. 5 lines 30-32, wherein it is disclosed that data on the inputs, i.e. information within the received bit-stream, is duplicated, to form duplicate bites)** and substituting the duplicate bits to replace bits of the placeholder bit-stream within the multiplexed bit-stream **(see claims 16 and 22, wherein it is disclosed that the initial data bits are replaced, i.e. substituted)**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and Bellier and duplicate bits of the information bit-stream within the received multiplexed bit-stream to form duplicate bits and substituting the duplicate bits to replace bits of the placeholder bit-stream within the multiplexed bit-stream, as taught by Abbot, thus allowing for systems that are fast, cost-effective, and reconfigurable **(see col. 3 lines 51-53)**.

Consider claim 13, Breti discloses replacing bits of the placeholder bit-stream with bits derived from the information bit-stream **(see paragraph 0067 and claim 3)**.

Breti and Bellier do not specifically disclose duplicating bits of the information bit-stream within the received multiplexed bit-stream to form duplicate bits and substituting the duplicate bits to replace bits of the placeholder bit-stream within the multiplexed bit-stream.

Abbot teaches duplicating bits of the information bit-stream within the received multiplexed bit-stream to form duplicate bits **(see col. 5 lines 30-32, wherein it is disclosed that data on the inputs, i.e. information within the received bit-stream,**

is duplicated, to form duplicate bites) and substituting the duplicate bits to replace bits of the placeholder bit-stream within the multiplexed bit-stream **(see claims 16 and 22, wherein it is disclosed that the initial data bits are replaced, i.e. substituted)**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and Bellier and duplicate bits of the information bit-stream within the received multiplexed bit-stream to form duplicate bits and substituting the duplicate bits to replace bits of the placeholder bit-stream within the multiplexed bit-stream, as taught by Abbot, thus allowing for systems that are fast, cost-effective, and reconfigurable **(see col. 3 lines 51-53)**.

4. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breti et al. (US Patent Application No. US 2005/0152411) in view of Bellier et al. (US Patent Application No. 2002/0194566) in further view of Choi et al. (US Patent Application No. US 2002/0041608).

Consider claim 4, Breti discloses that the multiplexer is configured to multiplex an additional bit-stream in forming said multiplexed bit-stream **(see elements 162, 164, and 166 in figure 11, which each receive uncoded auxiliary bit-streams, which are additional bit-streams and are ultimately inputted to multiplexer; also, see paragraph 0064, lines 3-18)**;

a data formatter that performs said replacing **(see interleaver and data replacer, elements 192 and 194 in figure 11, with the convolutional byte interleave of the interleaver and the dummy byte replacement of the data replacer, together**

combined, collectively perform the function of said data formatter, as disclosed in paragraph 0067; also, see claim 3),

and the encoder is configured to process every bit of said modified bit-stream when operating on bits derived from said additional bit-stream **(see paragraph 0070)** and

to process every other bit of said modified bit-stream when operating on bits derived from said information bit-stream **(see paragraphs 0072 and 0080)**.

Breti and Bellier do not specifically disclose that the data formatter is configured to bypass said replacing when operating on said additional bit-stream within said received multiplexed bit-stream.

Choi teaches that the data formatter is configured to bypass said replacing when operating on said additional bit-stream within said received multiplexed bit-stream **(see paragraphs 0052, 0053, and 0054; where it is disclosed that the randomizer, i.e. a data formatter, bypasses replacing when operating on multiplexed additional and ATSC data, i.e. the additional bit-stream within said received multiplexed bit-stream)**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and Bellier and have the data formatter configured to bypass said replacing when operating on said additional bit-stream within said received multiplexed bit-stream, as taught by Choi, thus allowing a DTV system robust to noise **(see paragraph 0016)**.

Consider claim 14, Breti discloses that the multiplexer is configured to multiplex an additional bit-stream in forming said multiplexed bit-stream **(see elements 162, 164, and 166 in figure 11, which each receive uncoded auxiliary bit-streams, which are additional bit-streams and are ultimately inputted to multiplexer; also, see paragraph 0064, lines 3-18)**;

a data formatter that performs said replacing **(see interleaver and data replacer, elements 192 and 194 in figure 11, with the convolutional byte interleave of the interleaver and the dummy byte replacement of the data replacer, together combined, collectively perform the function of said data formatter, as disclosed in paragraph 0067; also, see claim 3)**, and

the encoder is configured to process every bit of said modified bit-stream when operating on bits derived from said additional bit-stream **(see paragraph 0070)** and

to process every other bit of said modified bit-stream when operating on bits derived from said information bit-stream **(see paragraphs 0072 and 0080)**.

Breti and Bellier do not specifically disclose that the data formatter is configured to bypass said replacing when operating on said additional bit-stream within said received multiplexed bit-stream.

Choi teaches that the data formatter is configured to bypass said replacing when operating on said additional bit-stream within said received multiplexed bit-stream **(see paragraphs 0052, 0053, and 0054; where it is disclosed that the randomizer, i.e. a data formatter, bypasses replacing when operating on multiplexed additional and**

ATSC data, i.e. the additional bit-stream within said received multiplexed bit-stream).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and Bellier and have the data formatter configured to bypass said replacing when operating on said additional bit-stream within said received multiplexed bit-stream, as taught by Choi, thus allowing a DTV system robust to noise **(see paragraph 0016)**.

5. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breti et al. (US Patent Application No. US 2005/0152411) in view of Bellier et al. (US Patent Application No. 2002/0194566) in further view of Knutson et al. (US Patent No. 6,788,710).

Consider claim 9, Breti discloses that the plural bit-streams are identical in length **(see paragraph 0066 lines 1-3, where each information bit-stream has 3 bytes and see paragraph 0066 line 4, where each dummy bit-stream has 184 placeholder bytes)**.

Breti also discloses inputting of one of an information bit-stream **(see the multiplexer, element 190 in figure 11, where the top three input ports input information bit-streams, as disclosed in paragraph 0066 lines 1-3 and lines 6-12; see claim 2)** and a placeholder bit-stream **(see the multiplexer, element 190 in figure 11, where the bottommost input port inputs a placeholder bit-stream i.e. dummy stream, further disclosed in paragraph 0066 lines 12-17 and claim 3)**.

Breti and Bellier do not specifically disclose that the inputting of one of an information bit-stream and a placeholder bit-stream successively alternates, over at least most inputs of the one information or placeholder bit-streams, between an information bit-stream and a placeholder bit-stream.

Knutson teaches that the inputting of one of an information bit-stream and a placeholder bit-stream successively alternates, over at least most inputs of the one information or placeholder bit-streams **(see figure 4, where the bit-streams inputted to multiplexer 44 (one of an information bit-stream and one of an auxiliary and null bit-stream) are alternated; further disclosed in col. 4 lines 46-67)** between an information bit-stream and a placeholder bit-stream **(see col. 5 lines 1-7, where datastream 30 is an information bit-stream and the null stream is a placeholder bit-stream).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and Bellier and have the inputting of one of an information bit-stream and a placeholder bit-stream successively alternates, over at least most inputs of the one information or placeholder bit-streams, between an information bit-stream and a placeholder bit-stream, as taught by Knutson, thus allowing simple and efficient means to insert auxiliary data into a datastream **(see col. 2 lines 16-20)**.

Consider claim 19, Breti discloses that the plural bit-streams are identical in length **(see paragraph 0066 lines 1-3, where each information bit-stream has 3**

bytes and see paragraph 0066 line 4, where each dummy bit-stream has 184 placeholder bytes).

Breti also discloses inputting of one of an information bit-stream **(see the multiplexer, element 190 in figure 11, where the top three input ports input information bit-streams, as disclosed in paragraph 0066 lines 1-3 and lines 6-12; see claim 2)** and a placeholder bit-stream **(see the multiplexer, element 190 in figure 11, where the bottommost input port inputs a placeholder bit-stream i.e. dummy stream, further disclosed in paragraph 0066 lines 12-17 and claim 3)**.

Breti and Bellier do not specifically disclose that the inputting of one of an information bit-stream and a placeholder bit-stream successively alternates, over at least most inputs of the one information or placeholder bit-streams, between an information bit-stream and a placeholder bit-stream.

Knutson teaches that the inputting of one of an information bit-stream and a placeholder bit-stream successively alternates, over at least most inputs of the one information or placeholder bit-streams **(see figure 4, where the bit-streams inputted to multiplexer 44 (one of an information bit-stream and one of an auxiliary and null bit-stream) are alternated; further disclosed in col. 4 lines 46-67)** between an information bit-stream and a placeholder bit-stream **(see col. 5 lines 1-7, where datastream 30 is an information bit-stream and the null stream is a placeholder bit-stream).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventions of Breti and Bellier and have the inputting

of one of an information bit-stream and a placeholder bit-stream successively alternates, over at least most inputs of the one information or placeholder bit-streams, between an information bit-stream and a placeholder bit-stream, as taught by Knutson, thus allowing simple and efficient means to insert auxiliary data into a datastream **(see col. 2 lines 16-20)**.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamal Javaid whose telephone number is 571-270-5137. The examiner can normally be reached from 8:00-5:00

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe, can be reached on 571-272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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